

25. A method as in claim 1 wherein said signal distribution system utilizes wireless transmission.

26. (Amended) An apparatus for transmission of a digital signal over an extended distance comprising:

- 5 a local expander comprising means for receiving a request for a data signal from a host controller which host controller is connected to said local expander;  
means in said local expander for generating an outgoing transmission signal;  
means in said local expander for sending said outgoing transmission signal [to a remote expander], which signals are sent over a signal distribution system;
- 10 a remote expander comprising means for receiving said outgoing transmission signal;  
means in said remote expander for generating a digital signal from said outgoing transmission signal;  
means in said remote expander for forwarding said digital signal to at least one peripheral device, which peripheral device is connected to said remote expander;
- 15 means in said remote expander for receiving inbound digital signals from said peripheral devices;  
means in said remote expander for converting said inbound digital signals to an inbound transmission signal;  
means in said remote expander for sending said inbound transmission signal to said
- 20 local expander, which signals are sent over said signal distribution system;  
means in said local expander for receiving said inbound transmission signal;  
means in said local expander for generating a digital signal from said inbound transmission; and  
means in said remote expander for forwarding said digital signal to said host controller.

25 27. An apparatus as claimed in Claim 26 wherein said data signal is a time relevant data signal.

28. An apparatus as claimed in Claim 27 wherein said time relevant signal is a digital signal which conforms to the USB Specification; and said time relevant signal represent isochronous data.

30 29. An apparatus as claimed in Claim 28 wherein said local expander additionally comprises:  
means for storing said inbound signal as a stored inbound signal;  
means for analysing said digital signal from said host controller to recognize a subsequent request for transmission of said time relevant digital signal; and

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c) means for sending said stored inbound signal to said host controller in response to said subsequent request.

33. An apparatus as claimed in Claim 26 wherein said extended distance exceeds 5 meters.

5 34. An apparatus as claimed in Claim 26 wherein said extended distance exceeds 30 meters.

35. An apparatus as claimed in Claim 26 wherein said extended distance is equal to or exceeds 100 meters.

10 36. An apparatus as claimed in Claim 26 wherein said signal distribution system utilizes unshielded twisted pair (UTP) wiring.

37. An apparatus as claimed in Claim 26 wherein said signal distribution system utilizes fibre optic cabling.

38. An apparatus as claimed in Claim 26 wherein said signal distribution system utilizes wireless transmission.

15 39. An apparatus as claimed in Claim 26 wherein said host controller is a PC, and said peripheral devices is a camera, a mouse, a keyboard, a monitor or a speaker or speakers.

40. (Amended) A method for transmitting a data stream between a host controller and a peripheral device over an extended distance; said method comprising:

- 20 a. feeding a first original, outgoing digital signal from a host controller to a local expander unit;
- b. converting said outgoing digital signals into a converted outgoing signal having a format suitable for transmission over extended distances;
- c. transmitting [either] said outgoing digital signal, as a outgoing transmission signal, over a signal distribution system;
- 25 d. receiving said outgoing transmission signal at a remote expander unit;
- e. converting said outgoing transmission signal to said first original outgoing digital signal;
- f. delivering said first original outgoing digital signal from said remote expander to at least one peripheral device;
- g. receiving, at said remote expander, a reply digital signal from said peripheral device;
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